



“Gheorghe Asachi” Technical University of Iasi, Romania



SOME ENVIRONMENTAL LAW QUESTIONS RELATED TO THE EXTENSION OF PAKS NUCLEAR POWER PLANT

László Fodor, Orsolya Bányai*

University of Debrecen, Faculty of Law, Agricultural, Environmental and Labor, Department of Law, Hungary

Abstract

The Hungarian Parliament's Decision 25/2009 (IV.2.) gave the approval to start preparatory activities for establishing new reactors on-site at Paks Nuclear Power Plant. Furthermore, Hungary ratified a treaty with the Russian Federation, signed in Moscow on January 14, 2014, for cooperation in the peaceful use of nuclear energy. Through these activities, Hungary has made its commitment to nuclear energy clear. In this article, we attempt to prove that neither the law of the European Union, nor the current national legislation can present obstacles to this decision. At the same time, we will draw upon the circumstances that accompanied the decision-making process. In doing so, we will reveal that by violating the access to information, public participation and integration and precautionary principles, the legitimacy of this decision was needlessly damaged.

Key words: environmental law, nuclear energy, precautionary principle, public participation

Received: February, 2014; Revised final: October, 2014; Accepted: October, 2014

1. Introduction

As a result of Earth's constantly growing population, the growth of developing countries following Western patterns (due to people wishing to reach similar well-being), the depletion of fossil fuel resources and the cumulative effects of climate change, today's political and economic leaders have been forced to find a solution to the growing demand for energy. It is the commitment of the state to meet this demand in order to ensure the basic needs of its citizens, provide suitable life circumstances and safeguard the operation of the economy. For economic parties, it is a business and the energy supply they provide is a public service. To satisfy the different demands, a new turn in energy policy, or a 'systematic change', is necessary (Ámon, 2001). The key elements of this are the increase of the proportion of renewable energy resources (possibly atomic energy) and the (absolute) reduction of energy consumption (e.g., energy saving provisions) (Bányai, 2013; Fodor, 2013a, b).

The use of atomic energy in the 21st century is twofold: certain countries (e.g., Germany, Austria, Switzerland, Belgium) abandon it, while others (e.g., Finland, France, Turkey, Italy, China, USA) build new power plants. Hungary, a relatively small country, belongs to the latter group: nuclear energy already plays a significant role in the country's electricity supply (43%). The extension of the current nuclear power plant (Paks Nuclear Power Plant) with two more reactors doubles the proportion of nuclear energy used in Hungary and makes the country's energy structure stiff. This happens in those times when the reduction of energy consumption and the impetus for renewable energy sources are part of mainstream European energy policy.

Because of the extraordinary investment costs (construction as well as the extension of power plants), the time consumption and the stiffness of the technology (nuclear fuel, required special skills, volume of production), a small country such as Hungary may divert from mainstream energy policy for 40-50 years. Furthermore, while nuclear energy

* Author to whom all correspondence should be addressed: e-mail: banyai.orsolya@law.unideb.hu, Phone: +36-52/512-700/74808

seems to be a suitable solution for certain challenges (e.g., supply security) (Csom, 2007; Gadó, 2007), it is widely questioned in the case of other factors (e.g., environmental sustainability, energy dependency) (Aszódi, 2007; Bajs, 2010; Szilágyi, 2010). Regardless, the decision has been made. The Hungarian Parliament's Decision 25/2009. (IV.2.) gave approval in principle to start the preparatory activities for establishing new reactors on-site at Paks. Furthermore, Hungary ratified a treaty with the Russian Federation (hereinafter, Russian Treaty), signed in Moscow on January 14, 2014, for cooperation in the peaceful use of nuclear energy. Through these activities, Hungary has made its commitment to nuclear energy clear.

In this study, an overview will be given on the above-mentioned decisions and those decisions will be evaluated based on Article 194 of the Treaty on the Functioning of the European Union (hereinafter: TFEU), the relevant articles of the Treaty establishing the European Atomic Energy Community (EURATOM) and Article 7 (2) of Act CXVI of 1996 on Nuclear Energy (hereinafter: NEA). In addition, the decisions will be evaluated from the viewpoint of some environmental law principles, such as precautionary principle, integration, access to information and public participation (AA, 2011).

First and foremost, the evaluation of the Decision in connection with the extension of the nuclear power plant will be assessed on the related grammatical and historical interpretation of European and national law, as well as scientific literature. Moreover, it should be noted that several news and opinion pieces have been published in connection with the extension of the nuclear power plant, but an evaluation of the topic from the energy and environmental law point of view has hardly been examined.

2. Decision on the extension

The extension of the working hours of Paks Nuclear Power Plant, which accounts for the 40-45 % of Hungary's electricity supply, and the extension with new reactors has been a dominant part of the national discussion on energy for years. In 2008, the medium-term energy policy accepted by Parliament defined the decision-making process related to the potential expansion of the nuclear power plant's capacity as a governmental task (GD, 2008). This did not mean the expansion was necessary; however, in 2009, Parliament gave its approval in principle to start preparatory activities for an expansion at Paks Nuclear Power Plant. In the fall of 2011, barely half a year after the start of the Fukushima nuclear disaster, the national energy strategy was created. This strategy identified nuclear energy as a cornerstone of the future energy system and included further operation of Paks Nuclear Power Plant and (according to several scenarios) its expansion. In 2012, the government made a decision on several

questions relating to the expansion, including the accentuated character of the investment at Paks, the restart of uranium mining in the Mecsek, the establishment of a governmental committee, and further tasks relating to the preparations, including modification in the legal context. The above-mentioned acts had already presented definite and concrete steps towards the construction of the new reactors.

The final decision was made by the contract with Russia, signed on January 14, 2014, and its ratification. Based on this, the Russian party contracted to plan, construct and install two additional power plant reactors (minimum 1000 MW built-up capacity; VVER type). Furthermore, Russia promised to ensure the fuel supply for the new reactors, as well as the temporary transportation and storage of the used fuel cassettes for 20 years. After 20 years, Russia's commitment to transportation and storage will cease and the used nuclear elements will be re-transported to Hungary. For these elements, the Hungarian party will make a separate loan contract with Russia; however, the details of this contract were not public at the time this article was written.

3. Compliance of the decision based on the law of the European Union, the EURATOM Treaty and national law

The reduction of energy consumption and the enhancement of the proportion of renewable energy resources (see Article 194 (1) of the TFEU) are a prominent part of the European Union's energy policy goals. To achieve these goals, the European Union (hereinafter: EU) legislation has sped up and developed significantly in the last couple of years. This was necessary provided that the EU wants to ensure the reduction of energy consumption by 20 % by 2020 (EED Directive, 2012) and increase renewable energy resources by 20 % inside the complete gross energy consumption (RED, 2009). As an EU member state, Hungary has to fulfill the directive's requirements by reducing energy consumption and increasing the proportion of renewable energy resources. However, this does not affect Hungary's right to freely form the general structure of its energy supply. Based on Article 194 (2) of the TFEU, the energy policy aims of the EU cannot influence the choice between different energy resources and the general system of a country's energy supply. This means that Hungary has the right to decide in favor of the use of atomic energy, just as Germany has the right to decide against it.

As an EU member state, Hungary is also part of the European Atomic Energy Community (EURATOM). The Treaty establishing the EURATOM contains two restrictions regarding the establishment of the nuclear power plants. First, Member States shall communicate draft agreements or contracts with a third State, an international organization or a nation of a third State to the Commission to the extent that such agreements or

contracts concern matters within the purview of this Treaty (Article 103). Hungary complied with this commitment by notifying the European Commission of the proposal for the Russian Treaty in December 2013. The European Commission did not object to the Russian Treaty. The second restriction of the Treaty is that new Member State installations relating to atomic energy shall be communicated to the Commission no later than three months before the first contracts are concluded with suppliers (Article 41 and 42). According to our information, Hungary has not yet provided this notification for the Paks Nuclear Power Plant.

According to current legislation, only the approval of the Parliament is necessary for extension of operating nuclear power plants. Article 7.2 of the NEA states that “preliminary consent in principle of the Parliament shall be required for the commencement of preparatory actions for the construction of a new nuclear facility or radioactive waste repository, or for the expansion of an existing nuclear power plant with an additional unit containing nuclear reactors.” This means that Parliament’s decision is sufficient to start the preliminary work relating to the expansion at Paks. However, according to the NEA, there is no need for any further Parliament decision regarding the expansion. Parliament gave its approval, as expected by the NEA, in the spring of 2009 (PD, 2009). If the analysis was closed at this point, it could be concluded that the expansion of Paks Nuclear Power Plant is not prohibited by EU legislation or the EURATOM Treaty. Parliament’s decision on the expansion is in compliance with other above-mentioned legal requirements; however, we wish to raise some issues regarding the compliance of Parliament’s decision with national law.

One of the key elements in the decision-making process on the expansion of the Paks Nuclear Power Plant is Parliament’s decision accepted in the spring of 2009. This decision is significant because it had already given preliminary approval in principle for the expansion. More specifically, as part of this decision the government’s draft proposal was examined by the Parliamentary Commissioner for Future Generations based upon the petition of the Energia Klub (Energy Club). The Parliamentary Commissioner for Future Generations concluded that the proposal violated the constitution in regards to the right to environment due to the professional and social unpreparedness (also embodied in the insufficient reasoning) that burdened the government, the collision with other policy plans, and the emptying of Parliament’s competency (PCFG, 2010). We mostly share his opinion.

This opinion will not be analyzed due to the limits of this article; however, we wish to refer to some of the statements included in the opinion. One of the main ideas of the opinion is that the decision on atomic energy is born on several levels. It is necessary to take into account the energy policy and

environmental impacts, as well as the enforcement of access to information and public participation.

As we have mentioned, Parliament’s power to grant approval in principle is given by Article 7 of the NEA (1996). The significant part of the debate between the government and the Commissioner is the interpretation of the Article’s provisions. The text of the act at that time was different from that of which is currently enforced (the NEA was amended in this respect by Article 5 of Act LXXXVII of 2011, the amendment to Act CXVI on atomic energy and Act CLIX of 1997 on the armed security guard service, nature protection and field guard service). The act states “The Parliament’s prior approval in principle is required for initiating activities in preparation for the implementation of a new nuclear installation or radioactive waste disposal facility and for the addition of a further unit containing a nuclear reactor to an existing nuclear power plant.” The question was the object of Parliament’s approval, as well as whether the principal approval has the same content both in case of the preliminary activities (initiating activities) and expansion (addition of a further unit).

According to the Commissioner, the decision is not formal as it has serious consequences. Accordingly, Parliament would have made an adequately concrete decision in this situation, from which both the number of buildable reactors and their capacity is made clear. The Government’s proposal regarding the Decision was not in harmony with the provision of the NEA as it was about the establishment of “new reactor(s).” The Commissioner has also disapproved of the title and text of the proposal, as they are not in harmony with each other. The title refers to preliminary decision-making activity, while the content itself refers to the decision (Perger, 2012). This makes it possible for the truly important, open questions to be determined after Parliament’s approval. The Parliamentary Commissioner’s opinion proposed the amendment of the NEA because it provided more concrete content and extended Parliament’s competency (PCFG, 2010).

The NEA text was adapted to the interpretation of the Government by Article 5 of Act LXXXVII of 2011. Based on the reasoning for the proposal of the Act, Parliament’s approval was necessary to start preliminary activities. This interpretation is in line with the generally accepted interpretation, as well as legislative will (T/3288 bill). The original phrasing of the NEA was no doubt unfortunate, but this interpretation and its amendment can also be queried. On the one hand, the preliminary activity and final decision about expansion are two different phases of the process. On the other hand, it is relevant whether the new reactors are established on-site at the current power plant or as part of a new power plant somewhere else.

The solution would have been to prescribe approval in principle for both phases. Consequently, it can be stated that although a decision on the expansion of the nuclear power plant was not

prohibited by either EU law or the EURATOM Treaty, it was obviously not in compliance with those requirements enforced by national law when the decision was made. Furthermore, the current legislation can be questioned as a decision with serious social, economical and environmental consequences bounded to the approval of Parliament, which is single, formal and refers to preliminary activity.

4. Assessment of the decision on the basis of the precautionary principle

The benchmark of the precautionary principle was chosen to assess the decisions, *inter alia*, which became significant, especially in environmental law. The principle also has importance regarding the protection of human life and health. For instance, it appears among the principles of the Rio Declaration of 1992 and Article 6 of Act 1995 of LIII on the General Rules of Environmental Protection (hereinafter: EP Act) (EPAH, 1995). The precautionary principle in the EP Act has less significant content than the international principle, which is based on epistemological grounds, has strong moral content and is procedural in nature (Ekardt, 2012; Fodor, 2013a). The precautionary principle reflects the changes in public opinion regarding hazardous human technologies and the increasing level of sensitivity regarding risks. It reminds decision makers that our knowledge and technological possibilities (“human omnipotence”) are limited: sooner or later nearly all decisions may turn out to be wrong. Of course, current decisions cannot be required to be based on future knowledge. However, it can be required that decisions are made based on up-to-date scientific knowledge and involvement from concerned citizens (not just those who support the decision) as much as possible. That said, public participation regarding nuclear power should not cover technical details, but rather information regarding energy policy, environmental and consumer protection and other issues that directly affect citizens. In questionable situations, risky projects should be decided against by restricting or forbidding permit issuance, and realization should be aimed at identifying possibilities for minimizing affect and strain. The enforcement of the precautionary principle is an indispensable premise of (environmental) sustainability (Bándi, 2013).

As part of the precaution, the change in public opinion or professional risk assessment should be taken into account; therefore, regular revisions of decisions must be required (or at least allowed). However, it should be noted that a revision regarding the establishment of a nuclear power plant (new nuclear reactors) has limits (due to the energy structure’s inertness and inelasticity and the costs of investment and decommission). Therefore, the decision needs to be made with increased precaution and should not be rushed (Ekardt, 2012; Vajda, 2001). The possibility of revision in the case of

nuclear power plants only concerns the operational conditions (e.g., standards, safety distance, etc.) regarding the revision, in which Article 5.1 of the NEA is applicable. According to this Article, “the nuclear safety requirements for the application of nuclear energy must be reviewed and upgraded regularly, taking into account the latest scientific achievements and international experience.”

The peaceful use of nuclear energy has always been known as a hazardous activity (Ormai, 2006; Winter, 2012,). Public opinion regarding nuclear power depends not only on professional arguments concerning safety questions but also on culture, notoriety of alternative solutions, warning effects of nuclear accidents, and on numerous other factors (Szijártó, 2010). When a political decision is made, all of the above-mentioned factors should be taken into account. This is not possible when the decision about a particular power plant is made by the permitting authority (after the political decision) because the latitude of a competent authority is more limited, if there is any latitude at all. For instance, in our case, the environmental permitting procedure will not come up in discussions on site alternatives because Parliament’s decision has already fixed the location of the power plant (Cserháti et al., 2013).

Regarding the information about the expansion of Paks Nuclear Power Plant, at least two conclusions may be drawn. First, underpinning political decision or getting decision across to the public opinion after the decision was made is not acceptable saying that at the level of law enforcement, everything will be lawful, as the aspects of the two levels inevitably differ from each other. The risk assessment performed by Parliament and the central government cannot be replaced with the latter risk assessment of the competent authority. The second main conclusion is that Hungarian citizens need to be looked upon as partners, not potential enemies, in the decision-making process and information concerning the public needs to be disclosed. At present, these activities are not observed.

5. Assessment of the decision on the basis of the principle of publicity, public participation and integration

In Hungarian environmental law, the principle of publicity has two aspects. On the one hand, it involves the right of access to environmental information (Article 12.2 of the EP Act). On the other hand, it includes the duty of public authorities to disseminate environmental information (Article 12.3 of the EP Act; similar to Article 5 of the Aarhus Convention, 1998). It is worth noting that different studies concerning the preparation of the two new units containing a nuclear reactor have been prepared. However, MVM Ltd. (Hungarian Electricity Company) tried to hide these studies from the public.

Legal action had to be taken to access this information in most cases. Finally, the courts confirmed the general interest of MVM Ltd., taking into account that MVM Ltd. manages public property, and granted the claims.

The right to access information is a precondition for public participation, which gives citizens and environmental organizations the right to participate in environmental decision-making processes (Article 6 of the Aarhus Convention, 1998). The right to public participation is regulated in Part VIII of the EP Act and guarantees the right for environmental organizations to participate in strategic planning relating to the environment, preparation of legally binding regulations and environmental administrative procedures.

Public participation (in the form of delivering opinions) was omitted during the ratification procedure of the Russian Treaty; although, public consultation would have increased social support of the decision. It was omitted because, according to Act 2010 of CXXXI on Public Participation in Developing Legislation, the preparation of executive regulations and draft statutes that ratify international agreements must not be the subject of public consultation (Article 5.2.e) (PPA, 2010).

Furthermore, public participation regarding the authorization procedure of new nuclear power plants has already been restricted by the legislature. According to the latest legal amendments, the area of safety zones (and by this, the number of potentially affected participants) has already been decreased. According to Article 5.4 of 246/2011 Government Regulation on the safety zone of nuclear installations and radioactive waste storages, the safety zone was decreased to a sixth of its original size. The Government Regulation's rules concerning safety zones highlight the Nuclear Energy Act amended by Act 2011 of LXXXVII (discussed by the Hungarian Parliament as a matter of urgency). Article 11/A of the NEA defines who can be considered as a client in the different proceedings of the Nuclear Energy Supervisory Agency.

According to the first paragraph of the Article, "client" shall mean (apart from the authorized operator) all owners of properties located inside the impact area, as well as any person whose rights related to such properties has been registered in the real estate register (GR, 2011). This fully corresponds with the previous provision (Fülöp, 2009; Pánovics, 2013; Zoellner, 2012, Wallrabenstein, 2011). However, according to Paragraph 2 of Article 11/A (amended in 2011), in proceedings of the Nuclear Energy Supervisory Agency the impact area shall be the same as the safety zone. Considering this provision, the decreased area of the safety zone and the operator's obligation to acquire ownerships in the area of safety zone, the legislature's will to radically reduce the number of potential clients is obvious.

The environmental organizations operating within the impact area of the Paks Nuclear Power

Plant are not affected by this restriction because, according to Article 98 of the EP Act, they are considered a client if the impact area is within their area of operation.

The integration principle can be interpreted in many ways; however, it appears in a similar format in both the TFEU and the Charter of Fundamental Rights of the European Union (CFREU). According to Article 11 of the TFEU, "environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development." Article 37 of the CFREU prescribes that "a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development."

The integration principle in this case will be interpreted similarly as above: environmental interests should be taken into account in the definition and implementation of decisions with significant environmental effects. To define this principle here was necessary because it is not expressly named and defined by the EP Act. However, it is realized through the EP Act's different legal instruments, such as "assessment analysis" and "environmental assessment." These are several types of environmental impact assessments and these can help to integrate environmental aspects into different decisions. Under assessment analysis, the effects of national legal acts related to environmental protection shall be assessed, evaluated and summarized (Article 43.1 of the EP Act).

In connection with plans and programs that are likely to have a significant impact on the environment, an environmental assessment shall be conducted (Article 43.4 of the EP Act). Taking into account that the decision about an additional unit containing a nuclear reactor was a Parliamentary Decree (this is neither legal act nor a plan), the above-mentioned impact assessments could not be legally required. However, our opinion is that an environmental impact assessment should have been carried out before such a decision was made. Similarly, in regards to the Russian Treaty, the environmental impact assessment should have been prepared before the Parties entered into the contract because it fixed concrete circumstances such as the type and size of the power plant, storage of radioactive waste, and so on.

In summary, Hungarian environmental law has numerous provisions (based mostly on international and European Union requirements) that require decision makers to publicize environmental information and involve citizens in decision making and environmental impact assessments. However, these provisions were not applied in the decisions about an additional unit containing a nuclear reactor at Paks, which definitely has a significant effect on the environment.

6. Conclusions

The decision about an additional unit containing a nuclear reactor at Paks is essentially complete. This paper demonstrated that the decision about the expansion of the existing nuclear power plant is not restricted by EU law or the EURATOM Treaty. According to current Hungarian legislation, Parliament's decision can be considered legal. However, it should be noted that this is because the NEA was amended after the decision was passed. Furthermore, the current provision of the NEA, which requires Parliament's prior approval for initiating activities in preparation for implementation of a new nuclear installation, is only a formal requirement. As for the circumstances of the decisions and the steps taken to prepare the project, only several were highlighted in this study. However, due to these circumstances, guarantees regarding the right to environment, information and the involvement of the public in the decision-making process are adversely affected. This means that a certain arrogance still exists in the nuclear industry and the application of the rule of law principles is limited.

The decision-making process should have been channeled in the right way, and numerous instruments and methods were available to do so. In our opinion, Parliament's prior approval should have been requested by providing more alternatives, defining the content of the decision more precisely and underpinning the decision with a justification based on energy policy, environmental and social aspects. In regards to the environmental and energetic basis of the decision, all of the environmental (not just climate protection) and constitutional connections should have been taken into account, in particular the constitutional provisions regarding future generations (especially Recital, Article P and 38 of the Fundamental Law). Furthermore, the environmental impact assessment of this decision also should have been performed.

In regards to the decision's social dimension, all of the consequences of expanding the nuclear power plant should have been introduced objectively. All significant questions, such as the safety of nuclear power plants, environmental effects concerning nuclear energy, the acceptability of the risk regarding radioactive waste and life cycle costs of the nuclear power plants, have numerous levels of interpretation and therefore numerous different answers. The current communications regarding the expansion of the nuclear power plant in Hungary are definitely about blending the different levels of interpretation with answers to facilitate the expansion. This also should have been clarified.

Manipulating public opinion, or members of Parliament, is not generally considered a democratic tactic. The current situation is aggravated by the fact that the government helps the nuclear power plant operator with this manipulation. Moreover, all of this

happens using public funds, as the MVM group and the Paks Nuclear Power Plant are state-owned.

Finally, it is thought provoking that this is about the expansion of Hungary's current nuclear power plant, while at the same time, Germany decided to decommission 17 nuclear power plants. These power plants will be replaced with smaller power plants, building upon renewable energy sources, which result in better decentralization and flexibility of the energy supply system. According to the Germans, climate protection objectives are in favor of laying down nuclear energy because of lower cost of productions, the rigidity of energy systems built on nuclear power (big facilities, long building and decommissioning period etc.) and slow penetration of renewable energy sources. Nuclear energy and sustainable, renewable energy sources are not compatible with each other in the same electric grid (in case of the heavy presence of both types of energy). Reforming the energy supply system with a preference for renewable energy sources favors the decentralization of public power and the local democracy, which is expressly named among the benefits of the energetic transition.

Acknowledgments

The work is supported by the TÁMOP-4.2.2.A-11/1/KONV-2012-0041 project. The project is co-financed by the European Union and the European Social Fund.

References

- AA, (2011), Act LXXXVII of 2011 on the amendment to the Act CXVI on nuclear energy and the Act CLIX of 1997 on the armed security guard service, nature protection and field guard service, *Hungarian Official Journal*, No. 75, 22343-22364.
- Aarhus Convention, (1998), Aarhus Convention on access to information, public participation in decision making and access to justice in environmental matters, On line at: <http://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf>.
- Ámon A., (2001), More light (in Hungarian), *Hungarian Science*, **11**, 1368-1370.
- Aszódi A., (2007), Nuclear power plants in the electricity production (in Hungarian), *Hungarian Science*, **1**, 13-14.
- Bajsz J., (2010), Nuclear energy. With or without it? (in Hungarian), *Physical Review*, **5**, 156-160.
- Bandi G., (2013), About the law of sustainable development (in Hungarian), *Pro Futuro*, **1**, 11-31.
- Bányai O., (2013), *Regulation concerning reduction of energy consumption and promotion of renewable energy sources from the viewpoint of ecological sustainability* (in Hungarian), PhD Thesis, University of Debrecen, Hungary.
- Cserhádi A., Katona T., Lenkei I., (2007), The expansion of Paks Nuclear Power Plant. Investment in the future, On line at: <http://www.atomeromu.hu/download/4780/Befektet%C3%A9s%20a%20j%C3%B6v%C5%91be.pdf>
- Csom Gy., (2007), Priorities of energy policy (in Hungarian), *Hungarian Science*, **1**, 4-11.
- EED Directive (2012), Directive 2012/27/EU of the European Parliament and of the Council of 25 October

- 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, *Official Journal*, **L 315**, 1–56.
- Ekardt F., (2012), Atom stop, protection of property, fundamental rights (in German), *Nature and Law*, **12**, 813-819.
- EPAH, (1995), Act 1995 of LIII on the General Rules of Environmental Protection, amended several times, On line at: http://ec.europa.eu/environment/legal/liability/pdf/eld_ms_reports/HU%20report.pdf.
- Fodor L., (2013a), Environmental questions regarding regulation of nuclear energy in Germany (in Hungarian), *Iustum, Aequum, Salutare*, **4**, 93-114.
- Fodor, L., (2013b), A success story – the promotion of the renewable energy sources in Germany (in Hungarian), *Public Law Review*, **2**, 68-76, On line at: <http://ias.jak.ppke.hu/hir/ias/20134sz/08.pdf>.
- Fülöp S., (2009), The rights of future generations and the present generations participation rights (in Hungarian), *Law Enforcement Review*, **1**, 5-16.
- Gadó J., (2007), The future of energy production based on nuclear fission (in Hungarian), *Hungarian Science*, **1**, 31-36.
- GD, (2008), Decision 40/2008 (IV.17.) of the Government on the energy policy between 2008-2020, Budapest, Hungary.
- GR, (2011), 246/2011 Government Regulation on the safety zone of nuclear installations and radioactive waste storages, Budapest, Hungary.
- NEA, (1996), Act CXVI of 1996 on Atomic Energy, amended several times, Budapest, Hungary.
- Ormai, P., (2006), Disposal of radioactive wastes (in Hungarian), *Physical Review (Fizikai Szemle)*, **10**, 329-336.
- Pánovics A., (2013), Environmental rights of civil organizations in the light of practice (in Hungarian), *Public Law Review*, **2**, 30-39.
- PCFG, (2010), Opinion of the Parliamentary Commissioner for Future Generations, 128/2010, Budapest, Hungary.
- PD, (2009), Decision 25/2009. (IV.2.) of the Hungarian Parliament, Budapest, Hungary.
- Perger A., (2012), The analysis of Levai project based on available documents (in Hungarian), Energia Klub, Budapest, November 22, On line at: http://energiakontrollprogram.hu/sites/energiakontrollprogram.hu/files/levai_elemzes.pdf.
- PPA, (2010), Act 2010 of CXXXI on Public Participation in Developing Legislation, amended several times, *Hungarian Official Journal*, No. 181, 29/11/2010, 26076-26081.
- RED, (2009), Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC, *Official Journal of European Communities*, **L140**, 5.6.2009, 16.
- Szijártó Zs., (2010), Risk, society, transition. About the conflict regarding the nuclear waste storage facility in Ófalu (in Hungarian), Kalligram, Pozsony, Hungary.
- Szilágyi J.E., (2010), *The Regulation of Nuclear Energy*, In: *Environmental Law II. Studies from the Environmental Legal Thinking* (in Hungarian), Szilágyi J.E. (Ed.), Novotni Alapítvány, Miskolc, Hungary, 181-184.
- Vajda Gy., (2001), *Energy Policy* (in Hungarian), MTA, Budapest, Hungary.
- Wallrabenstein, A., (2011), The constitutionality of the recent nuclear phase-out (in German), *Humboldt Forum Recht*, **11**, 110-121.
- Winter G. (2012), The rise and Ffall of nuclear energy in Germany: courses, declarations and the role of law (in German), *Journal of Environmental Law*, **2**, 209-246.
- Zoellner, J., Schweitzer-Ries, P., Rau, I., (2012), *The Acceptance of Renewable Energies*, In: *The 20 Years of Renewable Energies* (in German), Müller T. (Ed.), Nomos, Baden-Baden, 107-119.